

Part I – Agency Profile

Agency Overview

Research mission – investigation into forestry and rangeland resource management problems, forest nursery production, and related areas. Part of the College of Natural Resources, Forest Utilization Research also includes the Rangeland Center with a legislative mandate for interdisciplinary research, education and outreach as suggested by a partner advisory council to fulfill the University’s land-grant mission (Idaho Code § 38-715), and the Policy Analysis Group with a legislative mandate to provide objective data and analysis pertinent to natural resource and land-use issues as suggested by an advisory committee of Idaho’s natural resource leaders (Idaho Code § 38-714).

Core Functions/Idaho Code

The duty of the Experiment Station of the University of Idaho’s College of Natural Resources is to institute and conduct investigations and research into the forestry, wildlife and range problems of the lands within the state. Such problems specifically include forest and timber growing, timber products marketing, seed and nursery stock production, game and other wildlife, and forage and rangeland resources. Information resulting from cooperative investigation and research, including continuing inquiry into public policy issues pertinent to resource and land use questions of general interest to the people of Idaho, is to be published and distributed to affected industries and interests. (Idaho Code § 38-701, 38-703, 38-706, 38-707, 38-708, 38-709, 38-710, 38-711, 38-714, 38-715)

Revenue and Expenditures

Revenue	FY 2016	FY 2017	FY 2018	FY 2019
General Fund	\$1,078,800	\$1,268,400	\$1,347,100	\$1,281,100
Total	\$1,078,800	\$1,268,400	\$1,347,100	\$1,281,100
Expenditures	FY 2016	FY 2017	FY 2018	FY 2019
Personnel Costs	\$902,900	\$1,106,100	\$1,106,900	\$1,121,800
Operating Expenditures	\$129,300	\$136,900	\$159,300	\$159,300
Capital Outlay	\$46,600	\$25,400	\$80,900	\$0
Trustee/Benefit Payments	\$0	\$0	\$0	\$0
Total	\$1,078,800	\$1,268,400	\$1,347,100	\$1,281,100

Profile of Cases Managed and/or Key Services Provided

Cases Managed and/or Key Services Provided	FY 2016	FY 2017	FY 2018	FY 2019
Number of Private Landowners Assisted:				
Pitkin Forest Nursery	1575	1575	1570	2082
Number of Seedling Industry Research Projects:				
Pitkin Forest Nursery	3	6	5	7
Number of:				
• Research Projects:				
Experimental Forest	11	15	16	15
Policy Analysis Group	9	10	12	12
Pitkin Forest Nursery	10	11	10	12
Rangeland Center	14	21	25	27
• Teaching Projects:				
Experimental Forest	24	26	22	25
Policy Analysis Group	8	8	8	8
Pitkin Forest Nursery	6	3	6	4
Rangeland Center	13	11	12	14
• Service Projects:				
Experimental Forest	11	12	12	12
Policy Analysis Group	12	10	11	11
Pitkin Forest Nursery	13	10	10	10
Rangeland Center	9	17	16	17

Red Tape Reduction Act

Each agency shall incorporate into its strategic plan a summary of how it will implement the Red Tape Reduction Act, including any associated goals, objectives, tasks, or performance targets. This information may be included as an addendum.

	As of July 1, 2019
Number of Chapters	N/A
Number of Words	N/A
Number of Restrictions	N/A

FY 2019 Performance Highlights

Policy Analysis Group (PAG)

FY19 was a year the PAG settled into its role as a go-to center for natural resource policy analysis in the state and region. In some cases, like the legislatively mandated Committee on Forest Land Taxation Methodology we provided consultation to stakeholders, and in others like the Idaho Trucking and Labor Task Force Coalition we designed and implemented a survey of Idaho's forest transportation workers. Other clients served include the Idaho Department of Lands and USDA Forest Service to convene and help inform planning associated with Shared Stewardship and Good Neighbor Authority implementation. We assisted the University of Idaho Extension on forest and fire policy questions, provided consultation to Idaho Department of Fish & Game, as well as policy briefings for Inland Empire Paper, Idaho Forest Group, and other industry partners. Regionally our expanded forest modeling and economic analysis capabilities were highlighted at a Montana Forest Products Roundtable as well as through funded projects with the Oregon Forest Resources Institute and the University of Oregon's Ecosystem Workforce Program. Nationally, the PAG helped to shape wildfire policy through a coalition of Idaho, Washington, Oregon, and Montana researchers, as well as shaping carbon accounting methodologies in a forest bioenergy workshop hosted by Resources for the Future and the Center for Climate and Energy Solutions in Washington DC. In total, PAG researchers and student fellows provided 37 presentations to a wide array of stakeholders reaching well over 1,000 attendees. The PAG also published several reports, bulletins, and peer reviewed papers. Two new Idaho Experiment Station publications appeared in print over the year in addition to five reports, seven peer-reviewed journal articles and one book chapter. The PAG continues to meet its legislative mandate to provide objective data and analysis on natural resource and land-use issues of concern to Idaho citizens, and seeks to expand its capacity to inform state, regional, and national policy discourse that affects the management of Idaho's natural resources. The number and scope of research projects highlights our commitment to this mandate, the impact of which is to provide timely information to inform critical land management decisions at multiple levels of government.

Pitkin Forest Nursery (Nursery)

In FY19 the Nursery significantly expanded undergraduate and graduate education, stakeholder engagement, and seedling-related research. The Nursery employed 45 undergraduate students who contributed to the seedling production process, and seed preparation through packing and shipping, which included production of approximately 84,000 seedlings planted on the UI Experimental Forest. The Nursery serves as teaching facility for the university and local secondary school classes learning the importance of reforestation and seedling quality. Eight university courses and student groups visited the nursery along with two visits from Lewiston High School. The Nursery also served to educate stakeholders about nursery practices, seedling quality, proper planting techniques, and advances in seedling research. Engagement with stakeholders included nursery tours, workshops, and seedling sales. The Nursery had 7 new and ongoing research projects supported by granting agencies and private partnerships. Example projects include examining (1) alternative containers for conifer seedlings, (2) linkages between lab-rated seedling quality and field performance of conifers, (3) seedling responses to competition removal post-planting, (4) long-term effects of container size on seedling survival and growth, and (5) continued work on a regeneration success decision-support tool that integrates seedling quality, competition, and site quality. To support these research efforts, the Nursery secured \$691,572 in external funding. The Nursery initiated 5 research projects funded through seedling sales, three of which are led by graduate students focused on improving propagation of sagebrush, western larch, and common camas. The sagebrush project is in collaboration with the Rangeland Center to examine plant responses to drought acclimation in the Nursery from seed collected from Rinker Rock Creek Ranch. Nursery staff published 6 peer-reviewed publications based on past and ongoing

regeneration work. We published a propagation protocol for blue elderberry, a difficult to grow shrub native to Idaho that has assisted other nursery growers in the region to produce the species for ecosystem restoration projects. The Nursery also contributed to a special issue in the journal *New Forests* of international research presented at the International Union of Forest Research Organizations (IUFRO) *Forest Regeneration in Changing Climates* conference we help organize in 2017. The Nursery also became the lead organization of the IUFRO *Temperate Forest Regeneration* working group comprised of practitioners and scientists around the world with interests in forest regeneration. Serving in this role will allow us to broaden engagement with Idahoans, stakeholders across the US, and citizens around the world.

University of Idaho Experimental Forest (UIEF)

In 2019, UIEF student forestry staff completed a 5-year cycle of stand-based forest inventory and preliminary analysis of stand growth and yield. Data use is for time-critical commercial thinning to prevent insect and disease damage and shared jointly with Policy Analysis Group staff to conduct long-term economic analysis as a regular, integrated component of the forestry curriculum. LiDAR remote sensing was initiated working jointly with Idaho Department of Lands. Inventory and LiDAR data will make results from several FUR-funded UIEF research projects on production forestry and fire management directly applicable on state, industry and federal timberlands in Idaho. Hands-on learning occurred for undergraduate and graduate students in timber sale preparation; log marketing; forest inventory; reforestation and thinning; forest road engineering and construction; economic analysis; wildlife management; wildland firefighting; inventoried over 1000 acres; pre-commercial thinning of over 100 acres; and planting of 84,000 seedlings grown by students at the Pitkin Forest Nursery. Research highlights include 4 real-time GPS studies to improve logging production efficiency and safety; 2 new studies to improve firefighter safety; 3 studies using aerial or ground-based LiDAR to improve precision forestry and wildlife management; 3 trials to evaluate seedling quality, stock types or herbicides; 2 new studies evaluating prescribed burning methods, and one study evaluating sensor networks for rapid detection of wildland fires. A new study evaluating use of smart watches to quantify labor rates for logging production and improve safety was initiated with Hancock Timber and Idaho Department of Lands. The UIEF hosted activities for two local scout troops, Future Farmers of America, Associated Logging Contractors and Extension Forestry, Idaho Forest Products Commission, and approximately 15 other small group field tours. Eight new large research proposals were submitted to increase forestry production efficiency, safety, and to assess the economic benefits of the industry.

Rangeland Center (Center)

The Center provided educational and research opportunities to 7 interns, including two interns placed at the newly established Rinker Rock Creek Ranch. Center faculty were involved with 27 research projects. An example was the Grazing lands Information System, a collaborative multi-state project that will improve the discovery and delivery of critical information for land managers along with other projects on intersections of livestock grazing, wildlife management, range health, and field measurements of biomass productivity. Collaborative work includes investigation of sources of *e.coli* in a watershed in southeastern Idaho, a project that is working with livestock grazers, the USDA Forest Service, Department of Environmental Quality, and Idaho Water Resources Research Institute to address issues of mutual concern. Our commitment to offer learning opportunities in land stewardship and to provide reliable information resulted in 17 products and services, including the annual Fall Forum and the Idaho Range Livestock Symposium, at which respectively 113 and 140 people attended. The Center helped to launch the new established Idaho Range Conservation Partnership, which held its first meeting in January with 110 people attending to learn about state-wide efforts to support healthy rangelands. The Center, working with UI Extension, also helps to organize *Sagebrush Saturdays* held at Rinker Rock Creek Ranch in the spring/summer months, introduced over 110 people to a variety of range topics. The Field Guide to Idaho Grasses, created by the Center, sold over 500 copies during its first year in hard cover.

Part II – Performance Measures

Performance Measure		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Goal 1						
<i>Achieve excellence in scholarship and creative activity through an institutional culture that values and promotes strong academic areas and interdisciplinary collaboration among them.</i>						
1. Objective A, Measure I: Number of CNR faculty, staff, students and constituency groups involved in FUR-related scholarship or capacity building activities.	actual	46	46	50	64	-----
	target	46	46	49	51	52
2. Objective A, Measure II: Number and diversity of courses that use full or partially FUR funded projects, facilities or equipment to educate, undergraduate, graduate and professional students.	actual	26	23	28	43	-----
	target	23	23	24	25	26
3. Objective B, Measure I: An accounting of products (e.g., research reports, economic analysis, BMPs) and services (e.g., protocols for new species shared with stakeholders, policy education programs and materials provided, accessible data bases or market models).	actual	43	31	36	37	-----
	target	31	31	32	33	34
4. Objective B, Measure II: An accounting of projects recognized and given credibility by external reviewers through licensing, patenting, publishing in refereed journals, etc.	actual	15	13	16	24	-----
	target	13 <i>refereed articles</i>	13 <i>refereed articles</i>	14 <i>refereed articles</i>	15 <i>refereed articles</i>	16
Goal 2						
<i>Engage with the public, private and non-profit sectors through mutually beneficial partnerships that enhance teaching, learning, discovery, and creativity.</i>						
5. Objective A, Measure I: Document cases: Communities served and resulting documentable impact; governmental agencies served and resulting documentable impact; non-governmental agencies and resulting documentable impact; private businesses and resulting documentable impact; and private landowners and resulting documentable impact. Meeting target numbers for audiences identified below and identifying mechanisms to measure economic and social impacts	actual	N/A	1,250	1,835	2,839	-----
	target	N/A	1,250	1,250	1,750	1,850
Goal 3						
<i>Efficient financial management of FUR state appropriated dollars supporting Goals 1 and 2 and leveraging resources to secure external funding.</i>						
6. Objective A, Measure I: New funding sources from external granting agencies, private and public partnerships and other funding groups.	actual	N/A	13	17	14	-----
	target	N/A	13	14	15	16

Performance Measure Explanatory Notes

Performance Measure #1 – Seeking 20% growth by FY2023 based on increased staff resources in 2016 that allows more faculty, staff, students and constituency groups to be involved in FUR-related scholarship activities.

- Performance Measure #2 – Seeking 15% growth by FY2023 based on College and program goals to enhance coordination of course offerings and research.
- Performance Measure #3 – Seeking 15% growth by FY2023 based on a critical need to communicate with external stakeholders, and increase the pace of products produced.
- Performance Measure #4 – Seeking 25% growth by FY2023 based on increased staff resources in 2016 focused on research that will increase scientific outreach and communication.
- Performance Measure #5 – This is a new measure based on UI and College strategic goal to increase involvement and communication with external stakeholders. The target of 1,250 participants served was established from internal analysis of recent year participants.
- Performance Measure #6 – Seeking 25% growth based on analysis of projects started and completed in recent years, staff capacity, and the need to increase the pace of projects completed annually.

For More Information Contact

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